2021537580

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

APPENDIX A

PM EUROPE

RESEARCH AND DEVELOPMENT

THREE YEAR PLAN 1990-1992

2021537581

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

RESEARCH AND DEVELOPMENT PLAN 1990-1992

EXECUTIVE SUMMARY

The Research and Development Department will concentrate its efforts during this 3-year planning cycle on product issues. This emphasis will be supported by its four major technical departments and three support functions whose aim it will be to strengthen the R&D position in key technology areas within PME. The R&D strategic goals include providing the support to maintain our current market share through product maintenance, developing innovative product lines which ensure an increase in our market share, and providing for the Company the technology base necessary to address pressures from external sources.

During this planning cycle the R&D Product Development group will improve existing products and develop new products which meet the approved Marketing requirements. Specifically by the end of 1990 Product Development will complete the work on tube-in-tow filters extending this technology to 6 mg products. During this same timeframe we will complete and present to Marketing for their consideration final products which incorporate total blend expansion, concentric filters, in order to enhance the subjective characteristics of low delivery products and CA web filters which enhance filtration efficiency without compromising on RTD. Furthermore Product Development has initiated a collaborative program with Marketing research in order to monitor consumer perceived product performance of our key brand families and to ascertain if current market dynamics can be correlated with subjective product attributes. This is a continuous program which is aimed at understanding our customers as well as our product lines.

Quality Assurance and Technical Services will focus its attention on the standardization of key elements in support of our product monitoring program in order to guarantee product quality consistency and uniformity. In order to accomplish this task, QA will continue its efforts to standardize (PME affiliates and PM USA) analytical methods related to the analysis of ingredients, filter additives and adhesives. QA will continue the revision of packaging material specifications and complete this work by the end of 1990. Furthermore QA will develop a Pan-European data treatment system for incoming inspection, improve the existing supplier rating system with the introduction of both productivity and commercial aspects, and introduce for selected items an acceptable procedure based on supplier certificates, audits and quality records (1991-1992). Quality Assurance will take advantage of international task forces (CORESTA/ISO) in order to adapt current PME procedures to new international requirements. A considerable amount of time will be spent by QA in order to develop new and innovative approaches to presenting cigarette information in such a way as to enable the correlation of market

2021537582

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

data to cigarette characteristics. This project will enhance our existing monitoring function and will strengthen our basic knowledge about competitive products.

The Process Development department will continue to develop programs aimed at Product and Process improvement within affiliate and licensee manufacturing sites. Our current tobacco optimization program will focus its attention on process standardization across all affiliates for key processing steps and will significantly contribute to cigarette firmness improvement as well as tobacco yield improvement.

The Research department is a vital sector within R&D which provides for the rest of the R&D departments a sound scientific base through continuous development of analytical methodology. The Research department is focusing its efforts in assisting Product Developemnt in the development of new and innovative products for our PME markets. This department will continue to provide basic monitoring services to all of PME in the areas of pesticides, humectants, CF, MH30 and tobacco additives in order to ensure full compliance with local regulations. The Research department has the added responsibility to develop viable strategies in order to address key scientific issues and pressures from external sources.

2021537583

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

THREE YEAR PLAN 1990-1992

RESEARCH

PRESENT POSITION

- Analytical support in all areas of cigarette manufacture has been intensified. In conjunction with Packaging Engineering EEC and PM suppliers an ongoing program is directed at finding an offset printing system which is subjectively acceptable.

- Blend components and ingredients used by PMG are regularly screened to ensure compliance with the German Food Law.

- Consumer and machine smoking studies on channel-ventilated cigarettes have been carried out in support of a large R&D program. A machine smoking collaborative study is in progress to meet the CORESTA Task Force 10 objectives.

- A current program with PME Process Development is aimed at optimizing oriental tobacco treatment in primary processing. Treated tobacco has been favorably evaluated by Panel A.

- In-house research programs on ETS in offices are continuing with extended analytical coverage. Assessment of the methods through collaborative studies is pursued. Support and control of independent laboratories subcontracted to work on ETS is continuing in cooperation with S&T.

- The program to investigate the influence of filler density on sidestream smoke yield was completed. The program to modify sidestream smoke yield and composition by cigarette construction and filler modification is continuing. Sidestream and mainstream smoke determinations as support to Product Development PME and PM-US continue to be performed.

- A four-channel single-cigarette apparatus has been set up for the routine measurement of sidestream smoke yields in nicotine, particulate matter and carbon monoxide. The monitoring of additional parameters in sidestream smoke is under development.

- New pesticides listed in the Decree on the Amendment of the German Pesticide Regulation of May 1989 and in the USDA regulation have been included in our pesticide monitoring program.

2021537584

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

- EEC, EEMA and competitive brands are regularly screened for selected filler and smoke components.

- InfraAlyzer methods to determine main components in base and application flavors were developed and are being implemented in PME QA and in PMG Munich and Berlin factories.

- A tobacco-identical biocontrol system as an alternative to existing traditional preservatives was developed.

- The mechanism of microbial off-taste formation caused by uncontrolled cut-tobacco dryer conditions was established.

- Tobacco-identical inhibitory compounds were isolated from Flue-cured and Oriental tobacco and are presently being identified.

- Microbial support to affiliates and licensees to control shelf life in tobacco storage and processing is continuing.

2021537585

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

THREE YEAR PLAN 1990-1992

RESEARCH

I. AGGRESSIVELY SUPPORT THE CURRENT BUSINESS

A. Objective

Improve product quality by the development and application of analytical methodology.

Strategies

Develop new approaches to identify and solve off-taste/off-odor problems in PM products.

Maintain and further develop a program to correlate subjective and chemical changes in cigarettes caused by different printing techniques used for packaging materials. Extend program to the offset printing process.

Assure that sidestream yields of PM products are in compliance with future internal guidelines and provide regular market- place surveys.

Intensify research towards on-line analytical methodology to be implemented in production areas.

B. Objective

Monitor the compliance of blend components and ingredients with the legal requirements in both EEC and EEMA regions.

Strategies

Maintain and continue to upgrade the monitoring program for chemical constituents in all materials going into the fabrication of a cigarette so as to be in complete compliance with specific laws witin PME.

Continue monitoring of pesticide residue levels in leaf tobacco and finished products.

Extend program to new pesticides as requested by PME

2021537586

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

Management and/or legal requirements (EC regulations)

Strongly support Leaf Department in controlling the MH-30 situation in PM brands.

C. Objective

Assess the impact of environmental tobacco smoke (ETS) on indoor air quality in order to provide maximum technical assistance to corporate affairs.

Strategies

Continue the in-house program to monitor selected ETS components in real life environments during the course of controlled smoking sessions.

Support independent outside ETS studies in direct cooperation with PME-S&T aimed at assessing ETS exposure and its impact in real life environments.

Improve on existing analytical methods for assessment of ETS exposure, e.g. find more restrictive determinations of ETS related to respirable particulate matter.

D. Objective

Support corporate affairs in defending industry position.

Strategy

Actively participate in inter-company analytical programs leading to industry and government accepted methodology.

II. DEVELOP PRODUCTS WHICH ADDRESS THE CONSUMERS' DESIRE TO REDUCE THEIR HEALTH CONCERNS

A. Objective

Acquire technical information necessary to develop new products or to modernize existing ones so as to have acceptable products with excellent commercial quality available.

Strategies

2021537587

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

Assure that PM products are competitive with respect to consumers' perceived health concerns and recommend required improvements.

Reduce specific biological activity of cigarette smoke condensate by changing its quality and/or concentration so as to maintain the consumers subjective acceptability of the modified products.

III. DEVELOP PRODUCTS WHICH ADDRESS THE PUBLIC'S DESIRE TO REDUCE ENVIRONMENTAL TOBACCO SMOKE

A. Objective

Develop basic knowledge to focus on problems related to the development of new products and which addresses the environmental tobacco smoke (ETS) issue.

Strategies

Investigate the formation of undesirable components in aging cigarette sidestream smoke and develop an understanding of how to control them.

Continue to study the effect of cigarette construction, cigarette paper and filler additives on sidestream smoke composition and in particular on gas phase components and total gas phase yields.

Extend existing data base for prediction sidestream delivery of cigarettes based on their design and blend composition.

Investigate ways to diminish the sensory impact of environmental tobacco smoke.

IV. DEVELOP NEW PRODUCTS WHICH CAN BE MARKETED USING CURRENT STRATEGIES AND GIVE SMOKERS A PRODUCT ADVANTAGE

A. Objective

Contribute to the development of new or improved products designed to give tailored delivery profiles by providing analytical data and developing new analytical methodology to meet the eeds of Product Development.

Strategies

2021537588

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

Maintain the program for the measurement of puff-by-puff mainstream smoke deliveries of selected components.

Continue to develop methods to identify flavor and blend components in tobacco and in cigarette filler.

V. IDENTIFY NEW PRODUCT/ INTERNATIONAL PROCESS CONCEPTS AND DEVELOP PRODUCTS/PROCESSES FOR THE INTERNATIONAL MARKET

A. Objective

Improve the taste characteristics of tobaccos

Strategy

Develop a program to correlate subjective, chemical and microbiological changes in cigarettes caused by primary processing practices.

Improve primary processing with respect to tobacco sensory characteristics by establishing microbiological specifications.

VI. PROVIDE A BRAOD FOUNDATION OF BASIC RESEARCH THAT WILL GENERATE NEW PRODUCT CONCEPTS IN 5-15 YEARS

A. Objective

Maintain the scientific, technical and innovative base required to support PME's emerging business.

Strategies

Develop technical expertise through the training of Research personnel

Encourage innovation by patenting and publishing research results.

B. Objective

Continue basic research on and develop applications for tobacco microbiology within PM which will favorably impact on new or existing products and/or processes.

Strategies

Continue research towards more appropriate natural preservatives to provide alternatives to existing systems.

2021537589

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

Establish a program to investigate the bio-removal of tobacco compounds.

Study the physiology of identified bacteria as a function of tobacco water activity and heat treatments in primary processing.

Study the metabolism of these bacteria and evaluate their impact on the subjective quality of the finished product.

Set up microbiological specifications in order to ensure a constant product quality.

2021537590

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

THREE YEAR PLAN 1990 - 1992

PROCESS DEVELOPMENT

PRESENT POSITION

The Process Development Division establishes and implements programs aimed at product and process improvements for affiliates and licensees in order to contribute efficiently to the regional goals on quality, cost and flexibility.

- During the past year the tobacco process quality program was further extended and now includes strip-data from three affiliates. The comparative factory results were periodically reviewed with affiliates and the reporting format was adapted to better suit the needs of the users. This program was extended into the regional primary optimization program which was established and presented to various levels of affiliate management.

- Further improvements were made to the miniprimary resulting in savings of cycle time and increased flexibility.

- TMCI sheet development trials were carried out in Onnens and assistance was given to TSA Spain for the ASTA sheet program.

- ET capacity increase was implemented in BOZ and Munich.

- HT for cut rag and stems was evaluated for PM Asia.

- The evaluations of US Burley strip pack moisture and of various reconstituted tobaccos were completed.

- Burley capacity increase including temperature profile modification was completed in BOZ.

- Qualification trials on ET for Tabacalera, Spain were completed and the Dickinson Admoist system was evaluated for ET reordering.

- Assistance was given to PMG in Munich for the AMF Legg dryer start-up, to EEMA AOD for primary reviews in licensee factories and to PM Brazil and Argentina for stem process improvements.

- A presentation was given at the 1989 Tobacco Colloquium.

- The FC and BU Malawi study is in progress and the standardized technical data sheets on PME primary unit operations have been completed for BOZ.

- The human resources of the group were strengthened with two new engineers.

2021537591

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

THREE YEAR PLAN 1990 - 1992

PROCESS DEVELOPMENT

PRESENT POSITION

I. Aggressively support the current business, and identify new process concepts which would strengthen PME's position in the industry.

A. OBJECTIVE

Develop and implement programs aimed at product and process quality improvements and consistency for affiliates and licensees of both PME regions.

STRATEGIES :

- Complete the implementation of the tobacco process quality program.
- Evaluate and review tobacco processing product data and trends on a scheduled basis and establish improvement proposals in close collaboration with affiliates.
- Develop and implement an appropriate data transmission, handling, storage and reporting system together with CAD.
- Implement the Tobacco Information Management project in order to consolidate and intercorrelate R&D generated information.
- Assess the impact of screening out shorts at various process steps.
- Implement trial programs adequately as required and further improve planning, data evaluation and reporting.

B. OBJECTIVE

Develop, evaluate and implement new technologies and process applications and further improve existing ones.

2021537592

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

STRATEGIES :

- Implement the ET blend evaluation program in a collaborative effort with PM USA and PME.
- Complete the evaluation of the Dickinson continuous cylinder conditioning and force feed cutting in BOZ and the complete implementation of foreign matter removal systems.
- Continue to assist TSA on their sheet development program as needed.
- Identify technologies in industries similar to ours for potential application to tobacco processing. Follow-up developments with equipment suppliers and evaluate modified processing of specific blend components such as ET, Recon. and HS.

C. OBJECTIVE

Provide adequate assistance to affiliates, licensees and other groups for assessment programs on process quality or blend components.

STRATEGIES :

- Complete the FC and BU Malawi study requested by the Leaf Department and currently in progress.
- Further optimize the operation of the miniprimary and the support laboratory for increased flexibility and improved safety.
- Assist affiliates and licensees in process and product quality assessment programs as needed.
- Follow-up closely the improvement programs with the affiliates in the early stages of the engineering projects.
- Provide assistance to affiliates for start-up of new equipment or modified processing lines.

2021537593

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

D. OBJECTIVE

Further improve technology transfer, process know-how, standardization and coordination within PME and with PM USA.

STRATEGIES :

- Standardize processing and product parameters for improved consistency of operations, particularly in the areas of Burley treatment and expanded tobacco production.
- Complete the technical data sheets on primary unit operations for all affiliates.
- Maintain and improve technical expertise by further intensifying on the job crosstraining of new engineers.
- Establish general guidelines for standardized tobacco processing within the primaries.

14.8.1989/HEF/nip
3YRPLAN.DOC

2021537594

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

THREE YEAR PLAN 1990 - 1992

PRODUCT DEVELOPMENT

PRESENT POSITION

1. MARLBORO

- Cigarettes for blind product testing, in most of the EEC and EEMA markets, were prepared in order to monitor consumer perceived product performance.

- A product optimization program on the PE Marlboro has been initiated. Product candidates for consumer testing will be available in Autumn 1989.

- The total Marlboro product family manufactured and sold in Greece has been significantly improved by bringing the blend and the cigarette construction as close as possible to the PE products.

- Marlboro manufactured and sold in Austria has been changed from LS to KS.

- An improved version of Marlboro Gold sold in Switzerland has been developed and is presently consumer tested.

2. PHILIP MORRIS

- The development of the Philip Morris Ultra Lights 100's has been completed and the product introduced on the French and Italian market.

- The PE Philip Morris Ultra Lights KS product has been significantly improved by lowering the total RTD and increasing the tar delivery from 1.3 mg to 1.8 mg per cigarette.

- A regular KS product delivering 11 mg tar (DIN) has been developed and introduced in a golden pack on the German market.

- A Philip Morris Lights 84 mm product, having a total weight of less than 850 mg (tax class I), has been developed and will be introduced in Sweden in Fall 1989.

3. MERIT

- A 100 mm version of Merit Ultra has been developed for a possible introduction in Italy.

2021537595

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

4. MURATTI

- A new Muratti Ariston (Dial-a-Tar) as sold in Italy having a lower burning rate, which resulted in an increased puff number on the rich setting, has been developed.

- A new American blend type cigarette delivering 6 mg tar and being considered as a possible replacement of the Muratti 2000 cigarette as sold in Switzerland, has been developed and is presently consumer tested.

5. DIANA

- The tobacco blends of Diana KS and Diana Specially Mild KS manufactured and sold in Italy have been standardized which resulted an improvement of both products.

- In a collaborative effort with the Italian monopoly, a slightly modified version of the Diana KS has been developed and is presently sold in France.

6. L & M

- In order to improve the performance of the L&M Mild on the German market, a new cigarette using a modified blend is presently consumer tested.

7. CHESTERFIELD

- At the present time, blind product tests of various Chesterfield candidates are in the field in Germany, France and Belgium. All the results of these tests will be available latest at the end of October 1989.

- A light version of Chesterfield delivering 7 mg tar is presently consumer tested in Switzerland.

8. BRUNETTE

- A blend standardization program of the Brunette product family has been initiated and several product candidates, including a Brunette Extra with a longer filter, are presently consumer tested in Switzerland.

9. BELMONT

- The blend standardization program of the Belmont product family manufactured and sold in Finland has been completed. Consumer research indicated very favorable results for the new product candidates.

2021537596

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

10. STAR

- A new product having lower deliveries and improved taste characteristics has been developed and introduced on the Swiss market.

11. CONSUMER RESEARCH

- In collaboration with HQ Marketing, a study using the French market as a model was initiated with the objective to correlate market dynamics with measurable product attributes in order to get more accurate information on consumer perceived product performance. Initial results are very promising and a decision was made to include, as a next step, subjective data in the form of taste profiles into the study.

- In a combined effort with Marketing research France, a new questionnaire to be used in Consumer Research has been developed and is presently tested. The descriptive attributes used in this new questionnaire are based on consumer interviews performed during Spring 1989.

NEW INNOVATIVE PRODUCTS

1. VITALITY

- The objective of this project is to develop a cigarette delivering a clean, mild and refreshing taste, the "Perrier" of the cigarettes. Based on consumer research conducted in France, a final candidate has been selected for future ISAR tests and/or test markets.

2. PARADOX

- The development of a low tar cigarette (7 mg tar) delivering outstanding taste quality has been successfully completed. This product, which will be introduced in Norway during this Fall and using the brand name "Mega", is equipped with a 33 mm long concentric CA-filter and a 38 mm width tipping paper.

3. PO

- By using the Laser perforation and the total blend expansion technology, we have been able to develop a plain KS cigarette delivering only 9 mg of tar.

2021537597

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

1. BASIC TECHNOLOGIES

- The study having as objective to determine which porous materials (tipping and plug-wrap) have to be used to achieve a specified ventilation level on a cigarette has been completed and the prediction factors have been built into the existing cigarette modelling program.

- Several versions of combined filters including a recessed filter for ultra slim cigarettes (17 mm circumference) have been received from Filtrona LTD and are presently under evaluation. Intertaba is gathering data concerning pricing and feasibility to produce such filters.

2. EMERGING TECHNOLOGIES

- The feasibility and reproducibility of the total blend expansion technology from a processing point of view has been demonstrated. The material obtained by using this technology is presently used for different development of new innovative products.

- We have been able to demonstrate that the tube-in-tow technology significantly flattens the puff-by-puff profile. An industrial production run will be conducted during August in order to get accurate information on feasibility and reproducibility.

- Investigation on filters made at Intertaba using CA-web supplied by Celanese showed 100 % higher filtration efficiency than conventional CA-tow. Further development of this technology is pursued with high priority.

2021537598

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

THREE YEAR PLAN 1990 - 1992

PRODUCT DEVELOPMENT

I. AGGRESIVELY SUPPORT THE CURRENT BUSINESS

A. OBJECTIVE

Improve existing products and develop new products which meet the approved Marketing requirements while meeting standardization and productivity objectives.

STRATEGIES

- Support actively all programs aimed to monitor consumer perceived product performance of our key brand families and initiate, when needed, product optimization programs in order to ensure our competitive advantage in the market place.

- Improve and maintain, in collaboration with Marketing Research, the computerized Model in which Market dynamics are correlated with measurable and subjective product attributes in order to strengthen our understanding of consumer perceived product performance.

- Monitor the evolution of the key competitive products by making optimum use of our current cigarette information activities and ensure quick awareness on competitors' new product introductions.

- Develop and implement a modern project management system in order to optimize the speed and flexibility of the product development process and the allocation of the internal and external resources needed.

- Provide assistance and support to Manufacturing in order to ensure that product specifications are met during the initial production of newly developed cigarettes and ensure that cigarette construction know-how is effectively transferred to the manufacturing centers.

II. DEVELOPMENT OF NEW AND INNOVATIVE PRODUCTS WITH LONG TERM EARNING POTENTIAL

A. OBJECTIVE

Create new and innovative product ideas/concepts for the cigarette market.

STRATEGIES

- Further enhance the interfacing of Product Development and Marketing in the creative thinking process.

2021537599

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

- Keep an inventory of all new and innovative product ideas generated within the company.

- Develop and apply a screening system that can be used to select the most attractive opportunities.

B. OBJECTIVE

Enhance the effectiveness in Technology management in order to improve product and process innovation.

STRATEGIES

- Enhance awareness of Technology worldwide and maintain our Technology "storehouse" up to date.

- Strengthen our know-how on the Technology-Product relationships in order to :

  a) Improve our mathematical prediction models with the ultimate objective of being capable to predict the mainstream and sidestream smoke deliveries on a per puff basis whenever a cigarette component is exchanged and conversely whereby the system selects component required to achieve product objectives.

  b) Select and assess key technologies needed for the development of new and innovative products.

- Develop specifically the following selected technologies to the stage of industrial application :

  - Total Blend Expansion
  - Tube-in-tow Filter
  - Concentric Filter
  - Tobacco Sheet Filter
  - CA-web Filter
  - Tobacco Sheet Cigarette Wrapper
  - Dual Cigarette wrapper
  - Tobacco Extract Flavors
  - Concentric tobacco Rod

2021537600

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

THREE YEAR PLAN 1990 - 1992

QUALITY ASSURANCE AND TECHNICAL SERVICES

PRESENT POSITION

1. STANDARDIZATION

- The incoming inspection procedure for materials has been reviewed. For several items the system was changed from a lot-by-lot to a skip-lot inspection.

- A new instrument for colour and whiteness measurements was evaluated. A new instrument for the determination of tow crimping and total denier was designed and constructed. Both equipments were introduced in all affiliates.

- Various methods for the analysis of casings and flavours were reviewed and standardized with PM-USA.

- A standardized reporting for defective/non-conform deliveries was introduced in all affiliates. Based on this information a supplier quality rating system was started.

- The new PM infestation control program was introduced in all factories and warehouses of the affiliates. The program, based on prevention, consists of thorough cleaning and infestation detection with pheromone trapping.

- A task force including all smoke lab supervisors was set up with the objective of improving the reproducibility of the results produced within the region. The group met twice in 1989 and reviewed the existing procedures/methods used in their laboratories. The monitoring results already indicate an improved consistancy.

2021537601

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

- A monthly collaborative study (monitoring) was introduced among the European discriminative panels (B). This is an attempt to estimate the "closeness" of their subjective evaluations.

- The level of standardization within PME on critical QA methodology is undergoing evaluation with the aim of eliminating unjustified differences.

2. CORESTA

- Considerable effort has been dedicated to the development of a revised method for the analysis of cigarette smoke deliveries. The new method, expected to be available during the autumn 1989, should be appropriate to all cigarettes including channel-ventilated.

3. SASO (Saudi Arabian Standards Organisation)

- The air-conditioning installed in the laboratory in Riyadh under our responsibility is running according to ISO standards. However, the reduced level of knowledge of the laboratory personnel has required that intensive and extensive training be provided in Neuchatel, Riyadh and lately in Richmond. This project was handled in very close cooperation with EEMA Corporate Affairs, TTG, R&D and QA-PM/USA.

2021537602

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

4. Visual Inspection

- The new visual inspection handbook, prepared in cooperation with PM-USA, is nearly finished. All defect definitions have been agreed upon and illustrations as well as translation into French, Spanish, German, Dutch and Italian are currently being prepared. The manual intended to be used in all PM locations, will be printed in the USA and is expected to be ready by end November 89.

5. Filter Monitoring

- The monitoring of the main quality related characteristics of the filters was initiated. Reports including results from all affiliates will be issued periodically. The aim of this effort is to improve the quality of the filters wherever necessary using the experience gained elsewhere.

6. Firmness Monitoring

- The concept of "adjusted" firmness was introduced simultaneously with the publication of the first "firmness monitoring report". The results presented in a normalized way enable to compare processes more objectively and therefore allow for the identification of opportunities for improvement.

7. Glues

- Two new tipping glues were qualified and introduced in the affiliates. They show better machineability and improved product quality.
  The development of a natural seam glue as an alternative to the starch paste has not been successful thus far.

2021537603

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

8. Tobacco monitoring

- New cutters for TLA-tobaccos are under evaluation. The study aims at improving the quality of the cut-filler and the reliability of the results. Standardization with PM-USA will continue to be another objective.

9. Assistance to Licensees

- A B-type panel was implemented in MTI-Bologna. On-site visits with the objective of improving visual quality were made to Algiers (3), Hungary, Italy, Poland (2), Czechoslovakia and East Germany.

2021537604

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

THREE YEAR PLAN 1990 - 1992

QUALITY ASSURANCE AND TECHNICAL SERVICES

I. AGGRESIVELY SUPPORT THE CURRENT BUSINESS

A. Objective

Ensure, within the framework of Quality Assurance, the standardization of procedures and analytical methodology in order to guarantee quality consistency and uniformity of our products throughout PME. Ensure coordination with PM-USA.

STRATEGIES

1. Incoming Inspection

- Continue the revision and updating of methods used for the analysis of ingredients, filter additives and adhesives. Complete new specifications by 1991. Standardize with PM-USA.

- Continue the revision of packaging material specifications and complete it by end 1990.

- Develop a pan-European data treatment system for incoming inspection.

- Improve the existing supplier rating system with the introduction of both productivity and commercial aspects.

- Introduce for selected items an acceptance procedure based on supplier certificates, audits and quality records.

2021537605

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

2. Subjective Testing

Review and standardize the methodology used for taste evaluation while considering the results of the monitoring initiated in 1989.

3. CORESTA/ISO

Participate in the company's efforts leading to the approval of appropriate testing methods of ours and competitors' products with special emphasis on channel-ventilated cigarettes.

4. Analytical smoking

Take advantage of the existence of the task force created in 1989 to adapt current PME procedures to the new requirements of CORESTA/ISO methods when the latter are enforced. Another major objective of the referred task force is to harmonize the procedures for the quality assurance of the data.

2021537606

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

B. Objective

Establish and maintain efficient product auditing systems in order to ensure optimization of product quality.

STRATEGIES

1. Material evaluation/testing

- Continue audits of main suppliers of non-tobacco materials.
- Selectively reduce the material inspection in the laboratory for standard materials.

2. Cigarette Information

- Review current cigarette information activities in order to support Marketing and Product Development with information that reflects the market situation. Ensure quick information on competitors novelties.
- Study, with Product Development, the possibilities to use the existing data base to produce comprehensive reports on important cigarette properties e.g. Tar/SN ratio, Tar per puff, etc. This information would enable to correlate market data to cigarette characteristics.
- Develop the existing monitoring function for cigarette information laboratories to cope with the increasing number of official laboratories in the two regions. Strengthen the contacts among the specialists within our affiliates.

2021537607

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

3. Filter and Firmness monitoring

Make use of the reports created in 1989 in order to identify opportunities for improvement and act as a catalyst within the region for the dissemination of respective technical solutions.

4. Visual Inspection

Introduce in January 1990 the new visual inspection handbook prepared in cooperation with PM-USA. In addition to the standardization between PM-USA and PME, the new manual will offer an increased objectivity of product evaluations.

2021537608

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

C. Objective

Develop Quality Awareness within Philip Morris Europe.

STRATEGIES

1. Workshops / Seminars

Promote the organization of seminars, workshops and quality campaigns within PME Affiliates and Licensees.

2. Training Tools

. Review and update the slide-show "Quality Assurance in the Cigarette Industry".

. Develop a training program on infestation control.

3. Salesforce / Distributors

Protect product quality in the market place by making Quality oriented training programs available to the salesforce and PM distributors.

2024537609

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

D. Objective

Develop product knowledge and master new technologies in order to ensure our technical expertise and responsiveness. Promote the transfer of existing and newly developed technologies within the PME Quality Assurance Departments.

STRATEGIES

1. Tobacco Monitoring

Analyse the physical characteristics of the tobaccos used in PME and correlate them to the yields in primaries and secondaries as well as to the finished product quality.

2. Consumer Perception of Quality

Evaluate the information available on the consumers' perception of cigarette quality. Complete it if necessary and make use of this information for targeted product quality improvement.

3. Machineability of Materials

Identify supplies' specific parameters that influence machineability and develop related testing methods. Ultimately, revise material specifications accordingly.

4. Filter Firmness

Evaluate the impact of filter firmness on machineability and determine acceptable limits (end 89).

2021537610

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

5. Quality Problem Solving

Make use of visual inspection results to detect common problem areas and propose action plans.

Develop the exchange of information between PME and PM-USA to address and exchange specific quality related improvements e.g. aspect quality.

6. Robotics

Develop and implement a new concept for an automated cigarette information laboratory. Revise the computer applications accordingly.

7. High-speed machinery

Study the impact of increased automation brought about by the new machine generation on the current QA activities. Revise procedures accordingly.

8. PME Affiliates/Licensees

Provide assistance to all manufacturing centers for quality related programs/problems.

9. External Official Testing Laboratories

Ensure that official laboratories test correctly PM products through adequate monitoring and provide scientific assistance in areas that are critical to our business e.g. GCC.

2021537611

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

10. Infestation Control

Assist AOD in the implementation of the new PM infestation control program in the production and storage areas of our Licensees.

2021537612

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

Appendix B

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

APPENDIX B

REPORT ON THE MITSUBISHI CORPORATION

2021537614

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

PHILIP MORRIS U. S. A.

INTER-OFFICE CORRESPONDENCE

Richmond, Virginia

To: Dr. A. C. Lilly

Date: 1989 October 23

From: M. Z. DeBardeleben

Subject: The Mitsubishi Corporation

Summary

The Mitsubishi Corporation began over one hundred years ago. However, because of World War II, it has in actuality existed in its present form only since 1954. During the past 30 years, it has become the largest trading company in Japan, based on both pre-tax and net profit. Midterm sales for 1988 reached 6,274.2 billion yen (approximately $44 billion), with a pre-tax profit of 36.5 billion yen. It operates on a fiscal year ending March 31.

The company is diversely engaged in operations in six general areas: fuels, metals, machinery, foods, chemicals, and textiles. It has a broad worldwide information network, with offices or subsidiaries in over 80 countries. The various corporations that bear the Mitsubishi name, e.g., Mitsubishi Petrochemicals, Mitsubishi Motors, etc., are not part of The Mitsubishi Corporation. They are rather part of the pre-war corporation that today are known as The Mitsubishi Enterprises, companies that both do business with as well as compete with each other.

The Mitsubishi Corporation has embarked on a wide variety of joint ventures throughout the world. Of special interest is its agreement with R. J. Reynolds for the sales and promotion of Reynolds tobacco products in Japan. It also has recently teamed up with Combustion Engineering to set up petrochemicals plants in the Soviet Union. Other joint ventures range from the cross-breeding of rice with millet to the development of revolutionary optical fibers to the exploration for oil off the coast of Australia.

It appears that the corporation does business outside of Japan through a series of corporations named "Mitsubishi International." There is such an organization in the United States, another in England, another in West Germany, etc. It is these companies that acquire and track subsidiary companies. Some of these are highlighted below.

2021537615

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

Background

The Mitsubishi Corporation [Mitsubishi Shoji Kabushiki Kaisha] was founded in Japan in 1871 as a shipping concern. In 1893 it became the Mitsubishi Limited Partnership and in 1918 Mitsubishi Shoji, a trading company.

Under orders of the Allied Occupation forces, Mitsubishi was dissolved in 1947 and became 160 smaller companies. These restrictions on major trading companies were lifted in 1952, and by 1954 The Mitsubishi Corporation had reappeared on the business scene.

The 160 smaller companies formed in 1947, however, did not band back together to form the same pre-war conglomerate. Many of these companies had not survived. The 40 that did are known as "The Mitsubishi Enterprises." They are independent organizations, each with separate management, not only doing business with each other but more especially competing for the same business with outside companies. These 40 companies are involved in insurance (life, fire, marine), banking (commercial), heavy equipment manufacturing, real estate, and warehousing. Their one common goal is to safeguard the Mitsubishi three-diamond trademark, used since 1890, that is "a symbol of first-class quality merchandise and service."

The Mitsubishi Corporation is a general trading company -- a "sogo shosha." In terms of profit (both pre-tax and net), it is the largest trading firm in Japan.

	Sales	Pretax Profit	Net Profit
C. Itoh & Co.	7,731.9	23.6	6.4
Sumitomo Corp.	7,086.0	25.0	13.5
Mitsui & Co.	7,072.8	23.3	7.5
Marubeni Corp.	6,658.8	22.7	7.7
Mitsubishi Corp.	**6,274.2**	**36.5**	**16.6**
Nissho Iwai Corp.	5,307.3	8.8	4.0
Toyo Menka Kaisha	2,533.2	7.5	2.3
Nichimen Corp.	2,260.1	7.0	1.6
Kanematsu-Gosho	2,144.0	5.7	0.5

[Midterm sales (November 1988) in billions of yen]

It carries on purchasing and marketing functions in both domestic and overseas markets, has worldwide operational facilities along with an extensive information network, and acts directly or indirectly as financiers for its customers and suppliers in relation to its trading activities. It is responsible for approximately 17% of Japan's total imports and 8% of Japan's total exports [1984 figures]. Mitsubishi has 96 offices throughout the world and 30 subsidiaries. It is involved in over 60 overseas natural resources development projects and over 140 overseas projects involving

2021537616

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

agriculture, fisheries, iron and steel, shipbuilding, automobiles, machinery, chemicals, edible oils, textiles, warehousing, land development, and hotels. The corporation is spread through 130 cities in 80 countries.

Structure

The Mitsubishi Corporation is comprised of a general administrative division and 25 trading divisions:

Basic Chemical Plant Division
Basic Chemicals Division
Ferrous Raw Materials Division
Fine & Inorganic Chemicals Division
Foods (Commodity) Division
Foods (Products) Division
Fuels Division
General Machinery Division
General Merchandise Division
Heavy Machinery Division
Information & Aerospace Division
Lumber & Paper Division
Motor Vehicle Division
Nickel & Ferro-Alloy Division
Non-Ferrous Metals Division
Plastics & High Performance Chemicals Division
Power & Electrical Systems Division
Project Development & Construction Division
Ship & Rolling Stock Division
Steel Domestic Sales Division
Steel Export Division
Textiles Division

These divisions are grouped into six basic product areas. In order of overall contribution to the company's business they are:

Fuels Group. These divisions deal in crude oil, LNG, LPG, petroleum products, petroleum coke and carbon products, and oil exploration. Through this group, Mitsubishi imports approximately nine million tons of LNG from Brunei, Alaska, Malaysia, and Indonesia. They have discovered oil in Indonesia, Gabon, and the United States.

Metals Group. These divisions handle ores, metals, scraps, semis, and products such as copper, tin, zinc, lead, and aluminum. They are involved in coking coal development projects and iron ore development projects in Australia and Canada, import uranium concentrate, are especially active in the areas of new metals and electronic materials, and are

2021537617

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

responsible for 14% of Japan's steel exports. In late 1983 the metals group formed the Saijo Materials Center to supply Mitsubishi Electric with silicon wafers and other essential materials. This center developed a revolutionary unmanned transport system using computers and robots that has enjoyed the attention of much of the world.

Machinery Group. These divisions manufacture a wide variety of machinery and equipment for the chemical, petroleum, steel mill, construction, and electronics industries, as well as for ships, aircraft, automobiles, and consumer goods. The group is especially noted for its emphasis on advanced technology integrating computers and information network systems. It is involved in development and construction projects around the world, e.g., the Mombasa International Airport in Kenya, which accommodates widebodied jumbo jets.

Foods Group. These divisions deal in commodities and products: grain, feedstuff, fats and oil, livestock, sugar, marine products, canned goods, coffee, cocoa, dairy products, and general consumer products. They are involved in over 60 joint ventures around the world.

Chemicals Group. These divisions specialize in petrochemical materials, fine chemicals, inorganics, plastics, fertilizers, and agricultural chemicals. They are involved in over 30 joint ventures, including the world's largest salt operation in Mexico, which exports to Japan, the United States, Canada, and Southeast Asia.

Textiles and General Merchandise Group. These divisions import raw materials (cotton and wool) and garments, as well as lumber, paper, packaging products, ceramics, construction materials, tobacco, and beer. They export synthetic fibers, yarn, and fabrics, along with paper, tire tubes, cement, copy machines, televisions, receivers, and photosensitized materials. Through 20 overseas projects they perform technology transfer involving the production of man-made fiber, spinning, weaving, printing, and dyeing. Some of its joint ventures involve pulp products in Canada, wood products in Brazil, silica mines in Australia, tire sales in Australia, and office automation equipment in Canada. The group's future thrust involves office automation and new ceramics products.

2021537618

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

Business

The U.S. subsidiary mainly responsible for Mitsubishi's operations in this country is Mitsubishi International Corporation, headquartered at 520 Madison Avenue in New York, but with branch offices in:

California (San Francisco, Los Angeles, Palo Alto)
Colorado (Denver)
Georgia (Atlanta)
Illinois (Chicago)
Michigan (Detroit)
Missouri (St. Louis)
Oregon (Portland)
Pennsylvania (Pittsburgh, Philadelphia)
Texas (Houston)
Washington (Seattle)
Washington, D.C.

Of the major industrial/trading centers in this country, Boston and Miami are notably missing.

We have been able to identify the following subsidiaries of Mitsubishi International:

Agrex Inc. [Shawnee Mission, Kansas]
Coilplus Inc. [Athens, Alabama]
Kux Manufacturing Co. [Detroit]
Machinery Distribution Inc. [Houston]
Memory-Tech Inc. [Plano, Texas]
Mitsubishi Foods (MC) Inc. [San Diego]
Non-Ferrous International Corp. [New York]
Palmco Inc. [Portland, Oregon]
Petro-Diamond Inc. [Irvine, California]

Mitsubishi International has been granted a "brokerage license limited to business related to mergers and acquisitions."

Recent Joint Ventures

Prior to 1984, R. J. Reynolds tobacco products were sold in Japan by MC Tobacco, a wholly-owned subsidiary of Mitsubishi Corporation. In November 1984, Reynolds and Mitsubishi embarked on a joint venture for cigarette sales promotion and merchandising in Japan. The new company, R. J. Reynolds/M. C. Tobacco Company Ltd., was capitalized at 175 million yen, with 70% of this coming from Reynolds along with the president. In 1987

2021537619

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

this joint venture launched Winston Lights at 220 yen, the same price charged for most Japanese cigarettes.

In June 1989 it was announced that a promising **oilfield** had been discovered in the northwestern Australian continental shelf by **Japan-Australia L.N.G. Proprietary Ltd. (MIMI)**. The company is a joint venture between Mitsubishi Corporation and Mitsui & Co.

In July 1989 Mitsubishi Corporation entered into a joint venture with Inacomp Computer Centers Inc. (Troy, Michigan). The new company, **Computer Supercenters International**, will offer **computers, peripherals, software, facsimile and copier equipment**, as well as desktop publishing services. Inacomp is the fourth largest microcomputer dealer in the United States and has joint development and marketing agreements with **Sun Microsystems Inc.**

Also this summer it was announced that **Helios Inc.**, a joint venture between NKK Corporation and Mitsubishi Corporation, will act as sole sales agent for PCO in Japan. PCO, a subsidiary of **Corning Glassworks**, and with an investment by IBM, is the **largest optical fiber manufacturer** in the United States. The contract with PCO followed Helios' announcement that it had developed a **super-strong optical fiber covered by stainless steel (FIMT, or optical Fiber-in-a-Metallic-Tube)**.

In August 1989, Mitsubishi Corporation, along with Mitsubishi Petrochemical Co. and JGC Corporation, embarked on another joint venture in Brazil. **Oxiquimica S.A.** will be the recipient of **technical expertise on the production of acrylic acid and ester**, with plans to manufacture 40,000 tons of such products per year by 1992.

Mitsubishi Corporation has also planned **a petrochemical plant for producing polyethylene and engineering plastics** in West Siberia in the Soviet Union. For this project, Mitsubishi and its partners, Mitsui and Chiyoda Corporation, have teamed up with **Combustion Engineering, Inc.**, "because of a sense that deals with the communist nation will go faster with U.S. participation." They have additionally employed the same team on a project elsewhere in Siberia to produce **ethylene**.

In another venture, Mitubishi has joined Mitsubishi Motors Corporation and Heavy Industries Corporation of Malaysia (HICOM) to manufacture the **Proton Saga passenger car**.

With Mitsubishi Chemical Industries Ltd., Mitsubishi Coporation has invested in **Plantech Research Institute** for the purpose of **cross-breeding rice with millet**. The long-term goal is to produce a strain of rice that will have greater resistance to disease and pests, more strength to withstand cold and high winds, and a higher photosynthetic capacity.

2021537620

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

Most recently Mitsubishi is one of the investors in **Nihon Leisure Card System Co.** The company produces a new kind of **plastic money,** "pay now, buy later," offering the consumer a convenient alternative to carrying a pocketful of change.

Personnel

The Mitsubishi Corporation employs approximately 14,195 people worldwide. Key personnel* are:

Chairman of the Board	Yohei Mimura
President	Shinroku Morohashi
Executive V-P, Chemicals	Shigeru Iogi
Executive V-P, Domestic Operations	Toru Aizawa
Executive V-P, Info Systems & Services	Yoshio Taniguchi
Executive V-P, Metals	Masato Tagai
Managing Director, Administration	Hiroshi Kohiyama
Managing Director, Administration	Shinichiro Ohta
Managing Director, Foods	Enshiro Matsuyama
Managing Director, Fuels	Katsumi Sakamoto
Managing Director, Fuels	Yutaka Yamamoto
Managing Director, Internal Audit, Info & Communication Systems	Juko Okada
Managing Director, Machinery	Takeshi Eguchi
Managing Director, Machinery	Keishi Nakamura
Managing Director, Machinery	Yoshiaki Shibata
Managing Director, Metals	Nobuo Kobayashi
Managing Director, Personnel	Nobukazu Tawara
Managing Director, Planning	Susumu Nishimura
Managing Director, Technical Affairs	Kiyoshi Takahara
Managing Director, Textiles	Michiji Okuzumi

Mitsubishi International Corp. employs approximately 1,000. Some of its key personnel* are:

President/CEO	Minoru Makihara
Executive Vice-President/COO	Yasushi Hotta
Executive Vice-President/COO	Susumu Eto
Executive Vice-President/COO	Kazuyoshi Yanamoto
Vice-President/Secretary	Gordon C. MacDonald
Manager, Public Affairs	Martha Gellens

* Duplicate positions were reported in the same document, indicating that the companies in fact have more than one post of the same title.

2021537621

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

Vital Statistics

The companies can be reached at:

The Mitsubishi Corporation 6-3 Marunouchi 2-chome Chiyoda ku P.O. Box 22 C.P.O. Tokyo, Japan 100	Mitsubishi International Corp. 520 Madison Avenue New York, New York 10022

The telephone numbers are:

03 210-2121	212-605-2000

The Duns numbers are:

69-054-6460	00-698-7770

The Mitsubishi Corporation is privately held. The latest full financials which we have been able to gather are for the year ended March 31, 1984. The data from this annual report follow.

cc: M. D. Rosenberg
Central File

2021537622

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

MITSUBISHI CORP.
Country: JAPAN
November 12, 1984

Annual Report:
Consolidated Income Account, yrs. ended Mar. 31 (in millions of yen):

	1984	1983
(1)Total revenue.....	15,815,345	15,682,967
Gross trading prof.....	299,696	288,290
Other income, net.....	17,630	4,478
Interest & divs.....	112,176	118,677
Lease revu.....	4,136	5,249
Total.....	433,638	416,694
Sell., gen. adm. exp.....	241,972	236,256
Provisions.....	12,461	3,616
Interest.....	154,472	171,296
Curr. income tax.....	9,236	6,891
Def. income tax.....	11,070	cr2,874
Equity earn.....	22,334	23,901
Net income.....	26,761	25,410
(2)Earn., per sh.....	Y20.99	Y19.98

(1)From trading transactions. (2)As reported by Co. on average shs.; appropriately adjusted for free share distribution.

Consolidated Balance Sheet, as of Mar. 31 (in millions of yen):

Assets:	1984	1983
Cash.....	124,785	136,734
Time deposits.....	270,379	316,727
Securities.....	79,662	46,425
Receivables, net.....	2,774,717	2,652,942
Inventories.....	332,945	352,098
Advances.....	372,760	366,203
Prepayments, etc.....	46,761	47,887
Total current.....	4,002,009	3,903,254
Investm. & advances.....	448,885	422,847
Receivables.....	970,715	890,661
(1)Net property.....	233,032	207,881
Other assets.....	78,614	88,966
Total.....	5,656,509	5,513,609

2021537623

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

Liabilities:

Loans.....	1,218,841	1,177,548
Debt due.....	173,690	176,465
Notes, acceptances.....	971,893	931,680
Payables.....	1,146,081	1,013,154
Accruals.....	45,396	38,039
Advances.....	338,161	348,324
Deposits, etc.....	57,397	74,758
Total current.....	3,951,459	3,759,968
Staff benefits.....	43,366	40,305
Long-term debt.....	1,229,322	1,292,507
Minority interest.....	6,418	5,031
Comm. stk. (Y50).....	63,760	63,707
Capital surplus.....	83,658	78,198
Legal reserve.....	12,085	11,149
Retained earnings.....	307,815	290,910
Foreign curr. trans. adj.	dr41,374	dr27,993
(2)Treasury stock.....	.....	dr173
Stkhldrs. equity.....	425,944	415,798
Total.....	5,656,509	5,513,609
Net current assets.....	50,550	143,286
(1)Depreciation.....	105,485	99,645

(2)Representing 1,547,868 shs. at cost (1983: 1,547,868 shs.).

Note: Following are income account and balance sheet as converted to U.S. dollars at rate of 224 yen=$1 and 240 yen=$1 as of Mar. 31, 1984 and 1983.

Consolidated Income Account, yrs. ended Mar. 31 (in thousands of U.S. $):

	1984	1983
Total revenue.....	70,604,219	65,345,696
Gross trading prof.....	1,337,729	1,201,209
Other income, net.....	78,705	18,658
Interest & divs.....	500,786	494,487
Lease revu.....	18,464	21,871
Total.....	1,935,884	1,736,225
Sell., gen. adm. exp.....	1,080,232	984,400
Provisions.....	55,630	15,067
Interest.....	689,607	713,733
Curr. income tax.....	41,232	28,712
Def. income tax.....	49,420	cr11,975
Equity earn.....	99,706	99,587
Net income.....	119,469	105,875
Earn., per sh.....	$0.0937	$0.0833

2021537624

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

Consolidated Balance Sheet, as of Mar. 31 (in thousands of U.S. $):

Assets:	1984	1983
Cash.....	557,076	569,725
Time deposits.....	1,207,049	1,319,696
Securities.....	355,634	193,437
Receivables, net.....	12,387,129	9,301,513
Inventories.....	1,486,362	1,467,075
Advances.....	1,664,107	1,525,846
Prepayments, etc.....	208,755	199,529
Total current.....	17,866,112	14,576,821
Investm. & advances.....	2,003,951	1,761,863
Receivables.....	3,990,933	3,711,087
(1)Net property.....	1,040,321	866,171
Other assets.....	350,955	370,691
Total.....	25,252,272	21,286,633
Liabilities:		
Loans.....	5,441,254	3,219,712
Debt due.....	775,402	735,271
Notes, acceptances.....	4,338,808	3,882,000
Payables.....	5,116,433	4,221,475
Accruals.....	202,661	158,496
Advances.....	1,509,647	1,451,350
Deposits, etc.....	256,236	311,492
Total current.....	17,640,441	13,979,796
Staff benefits.....	193,598	167,937
Long term debt.....	5,488,045	5,385,446
Minority interest.....	28,652	20,962
Comm. stk. (Y50).....	284,643	265,446
Capital surplus.....	373,473	325,825
Legal reserve.....	53,951	46,454
Retained earnings.....	1,374,174	1,212,125
Foreign curr. tran. adj..	dr184,705	dr116,637
Treasury stock.....	.....	dr721
Stkhldrs. equity.....	1,901,536	1,732,492
Total.....	25,252,272	21,286,633
Net current assets.....	225,671	597,025
(1)Depreciation.....	470,915	415,187

2021537625

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

2021537626

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

APPENDIX C

RJR TOBACCO

R&D ORGANIZATION CHARTS

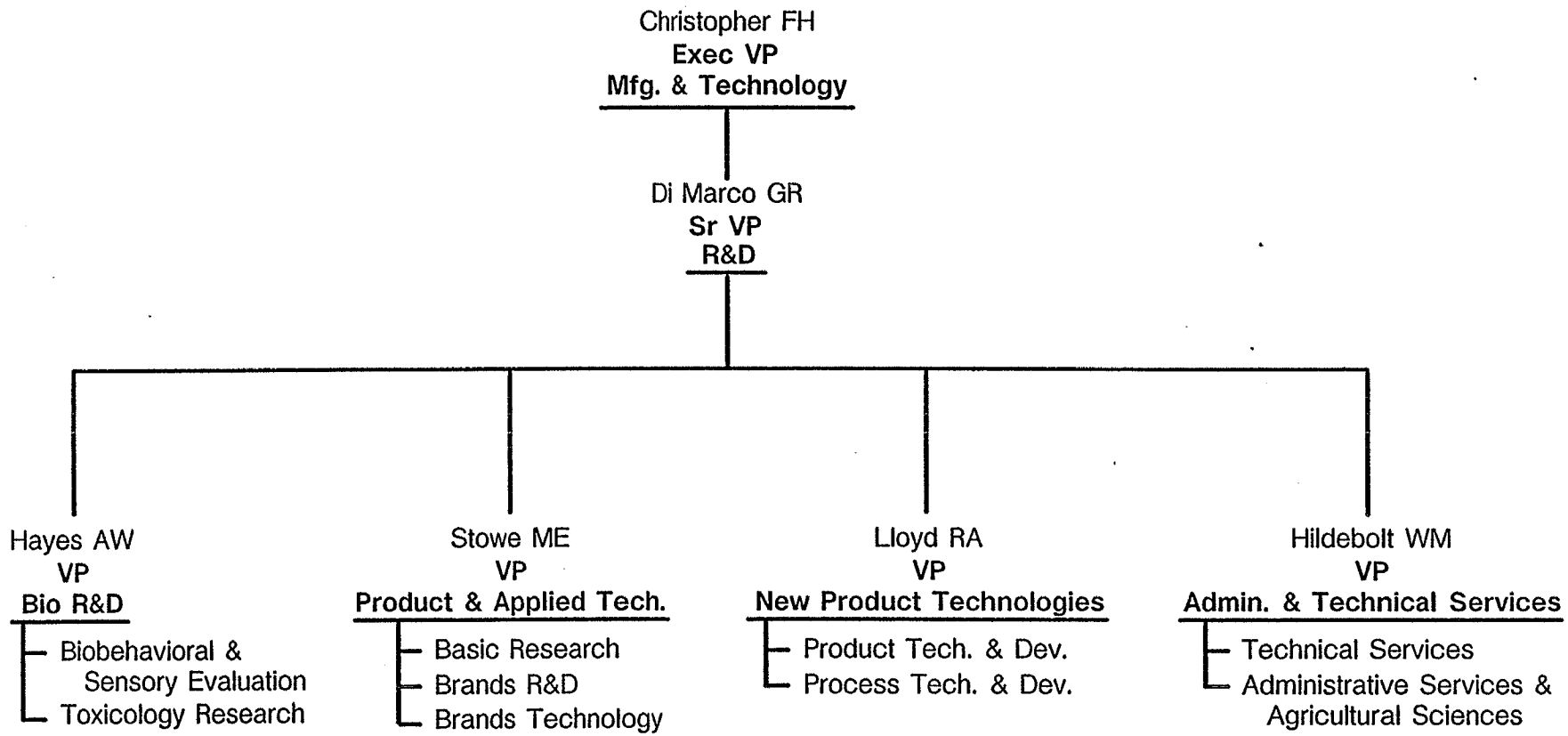
AND

DUAL LADDER DESCRIPTION

2024537627

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

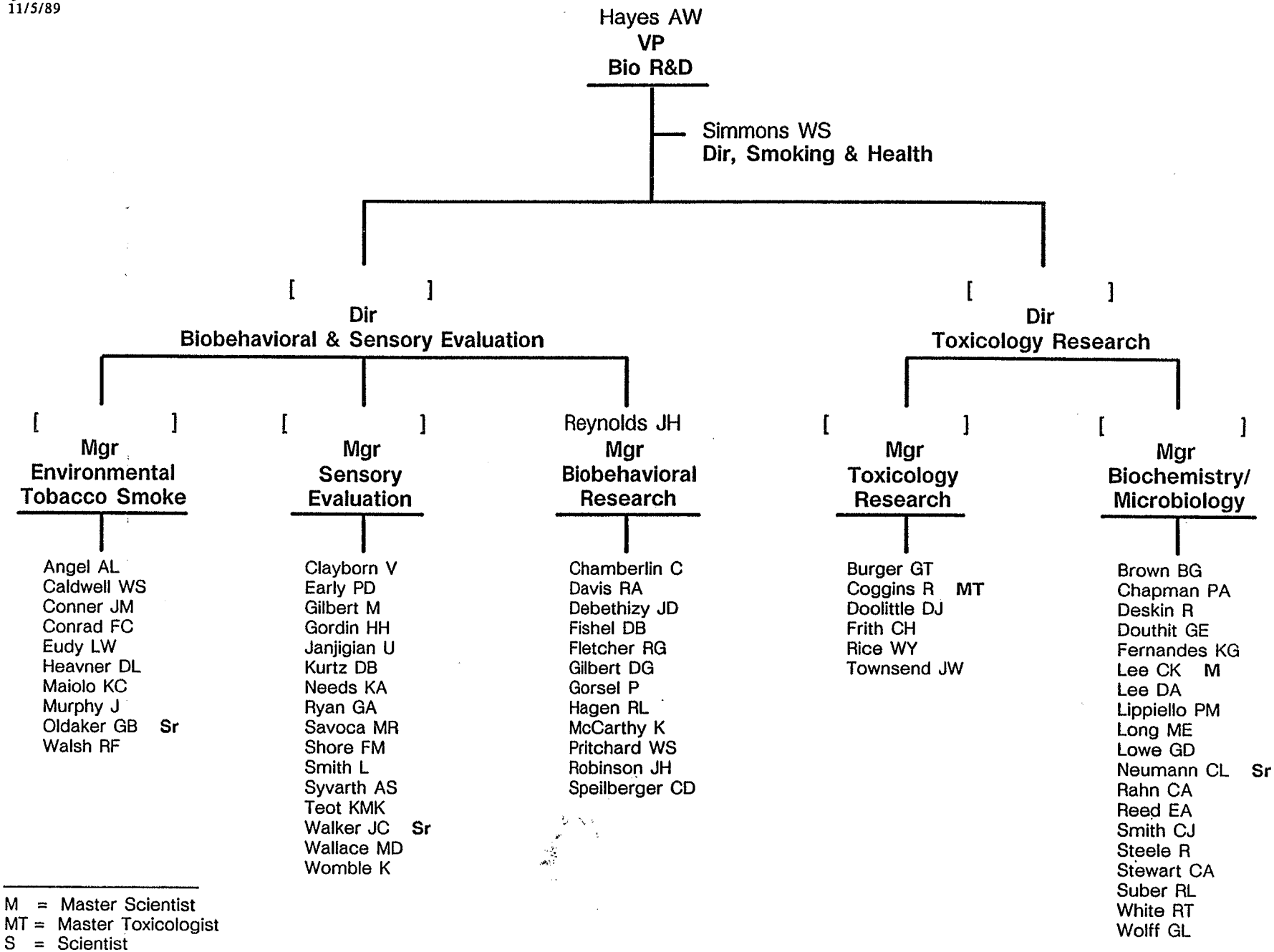
rjr-chart.1
11/5/89



2021537628

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

rjr-chart.2
11/5/89



M = Master Scientist
MT = Master Toxicologist
S = Scientist
Sr = Senior Scientist

2021537629

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000

rjr-chart.3
11/5/89

Stowe ME
VP
Product & Applied Technology

- Green CR — **Principal Scientist**
- Sensabaugh AJ — **Principal Scientist**

DuFour WM
Dir
Brands Technology

[ ]
Mgr
Prod. Design Technology

Bernasek E

Lawrence BM
Mgr
Flavor Technology

Beeson D
Creamer GE
Gignac JM
Harper TA
Ho CT
Lee DB
McGee CD
Mereschak CJ
Pogrow R
Redding JW
Shore RG M
Shu CK
Swicegood KW
Wallace GW

Willard RL
Dir
Brands R&D

Rivers JM
Mgr
Tobacco Standards

Long T

Inman LJ
Mgr
Brands R&D

Trogdon MD

[ ]
Mgr
Statistics

Hawley RW A
Line WB Sr
Mangan PP S
Morgan WT S

[ ]
Dir
Basic Research

Elder JF
Mgr
Analytical Chemistry

Bodnar JE
Borgerding MF
Byrd GD
Cash SL
Chung HL
Clapp WL Sr
Colby DA Sr
Coleman WM
Conner TR
Cooper PJ
Craver MK
Diffee JT
Dominguez LM
Dunn RJ
Fowler KW
Frederickson J
Fulp GW
Gordon BM
Greene GH
Hamlin WC
Hege RB
Hicks RD
Laurene AH
Lovette ME
Lyerly LA
Martin JM
McElroy HG
Milhous LA
Moore DS
Nanni EJ
Ogden MW
Riggs DM
Risner CH
Rix CE
Ruy C
Sadler CI
Seymour S
Sheppard ME
Simmons DF
Slater AM
Stennis VB
Thacker F
Thorne FA M
Uhrig MS
White EL
Young GW

Dickerson JP
Mgr
Chemical Research

[ ]
Prog Mgr
Radio-chemistry

Best F
Crooks EL
Eble A
Lynm D
Montoya M
Morrison CC

Heckman RA
Prog Mgr
Organic Chemistry

Bullings BR
Lawson JW
Newell MP Sr
Perfetti TA M
Powell RH
Schumacher JN M
Wong M

Ingebrethsen BJ
Mgr
Aerosol Research

Boldridge DW S
Brooks JL
Dube MF
Guess HE
Harris JL
Lewis LS
Lockamy FM
Norman AB
Sears SB
Squires WC S
Townsend DE M
Wheeler JP

M = Master Scientist
PM = Program Manager
S = Scientist
Sr = Senior Scientist
A = Associate

2021537630

Source: https://www.industrydocuments.ucsf.edu/docs/srpk0000